



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Taylor *et al.*

Art Unit: 2632

Appl. No.: 09/511,991

Examiner: ANH V. LA

Filed: 2/24/2000

Atty Docket: Time.43/JSF04-0001

For: **System and Method for  
Information Assimilation and  
Functionality Control Based on  
Positioning Information Obtained by  
Impulse Radio Means**

**STATEMENT IN SUPPORT OF PETITION FOR REVIVAL OF AN  
APPLICATION FOR PATENT ABANDONED UNABOIDABLY UNDER 37 CFR  
1.137(a)**

Attention: Office of Petitions  
Mail Stop Petition  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the Notice of Abandonment received for the above referenced case, Application submits the following statement in support of petition for revival of an application for patent abandoned unavoidably under 37 CFR 1.137(a).

Following an Examiner Interview for the above referenced case, Attorney for Applicants faxed an office action response. A copy of the response is enclosed which shows the fax date of August 26, 2003; well within the period for response. The Attorney for Applicant understood the fax number to be the fax most available to the Examiner and

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**JAN 09 2004**

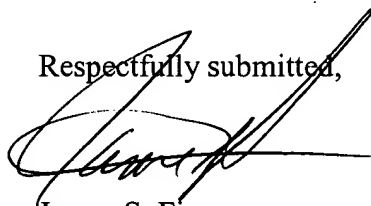
**OFFICE OF PETITIONS**

the one that was requested to be used by the Examiner. For verification, a copy of the fax certification is enclosed.

To ensure timeliness, Applicant is submitting this petition immediately upon receipt of notice of abandonment.

The Patent Office is authorized to charge deposit account no. 502697 for the petition fee for unavoidable delay with small entity discount. However, if it is believed that this petition would not fall with the unavoidable standard, but rather must be considered unintentional, the Patent Office is authorized to charge this larger fee as well.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'James S. Finn', written over a horizontal line.

James S. Finn  
Reg. No. 38450

Date: 1-7-04

James S. Finn  
Registered Patent Attorney  
Time Domain Corporation  
7057 Old Madison Pike  
Huntsville, AL 35806  
202-607-4607



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Type or Print Name James S. Finn

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**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED  
UNAVOIDABLY UNDER 37 CFR 1.137(a)**

## 3. Terminal disclaimer with disclaimer fee

- ☒ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.
- ☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ \_\_\_\_\_ for a small entity or \$ \_\_\_\_\_ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

## 4. An adequate showing of the cause of the delay, and that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition under 37 CFR 1.137(a) was unavoidable, is enclosed.

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

01-07-04

Date



Signature

202-607-4607

Telephone Number

JAMES S. FINN

Typed or printed name

38,450

Registration Number, if applicable

1718 M ST. NW #294

Address

WASHINGTON D.C. 20036

Address

Enclosure



Fee Payment



Reply



Terminal Disclaimer Form



Additional sheets containing statements establishing unavoidable delay



**CERTIFICATE OF MAILING OR TRANSMISSION (37 CFR 1.8(a))**

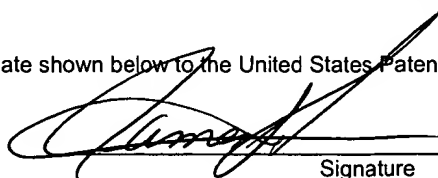
I hereby certify that this correspondence is being:

- ☒ deposited with the United States Postal Service on the date shown below with sufficient postage as ~~first~~ **class** mail in an envelope addressed to **Mail Stop Petition**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

- ☐ transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) 872-9306.

1-07-04

Date



Signature

JAMES S. FINN

Typed or printed name of person signing certificate

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**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED  
UNAVOIDABLY UNDER 37 CFR 1.137(a)**

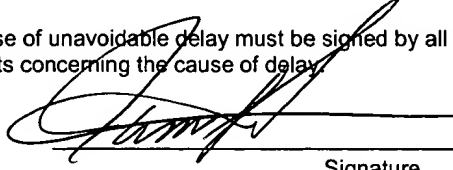
NOTE: The following showing of the cause of unavoidable delay must be signed by all applicants or by any other party who is presenting statements concerning the cause of delay.

01-07-2004

Date

38450

Registration Number, if applicable



Signature

JAMES S. FINN

Typed or printed name

(In the space provided below, please explain in detail the reasons for the delay in filing a proper reply.)

PLEASE SEE ATTACHED.

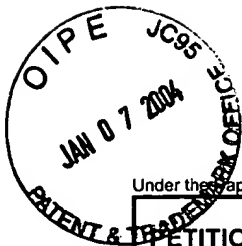
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DA \$ #21

PTO/SB/61 (11-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED UNAVOIDABLY UNDER 37 CFR 1.137(a)

Docket Number (Optional)

TIME 43/JSE04-000

First Named Inventor: TAYLOR ET AL.

Art Unit: 2632

Application Number: 09/511991

Examiner: VAN TRIEU

Filed: 2/24/2000

Title: SYSTEM AND METHOD FOR INFORMATION ASSIMILATION AND FUNCTIONALITY CONTROL BASED ON POSITIONING INFORMATION OBTAINED BY IMPULSE RADIO MEANS

Attention: Office of Petitions

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P.O. Box 1450

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NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (703) 305-9382.

The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the Office notice or action plus any extensions of time actually obtained.

## APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION.

NOTE: A grantable petition requires the following items:

- (1) Petition fee.
- (2) Reply and/or issue fee.
- (3) Terminal disclaimer with disclaimer fee-required for all utility and plant applications filed before June 8, 1995, and for all design applications; and
- (4) Adequate showing of the cause of unavoidable delay.

### 1. Petition fee

☒ Small entity - fee \$ 55.00 (37 CFR 1.17(l)). Applicant claims small entity status. See 37 CFR 1.27.

☐ Other than small entity - fee \$ \_\_\_\_\_ (37 CFR 1.17(l)).

### 2. Reply and/or fee

A. The reply and/or fee to the above-noted Office action in the form of OFFICE ACTION RESPONSE (identify the type of reply):

☒ has been filed previously on 8/26/2003

☒ is enclosed herewith.

B. The issue fee of \$ \_\_\_\_\_

☐ has been filed previously on \_\_\_\_\_

☐ is enclosed herewith.

01/09/2004 AWONDAF1 00000058 502697 09511991

01 FC:2452

55.00 DA

[Page 1 of 3]

This collection of information is required by 37 CFR 1.137(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS BY AIR MAIL. SEND TO: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Adjustment date: 01/09/2004  
AWONDAF1-00000058 55.00 CR  
01 FC:2452

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## UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,991 ✓	02/24/2000	Elise Taylor	1659.0930000	5220

26694 7590 05/30/2003

VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP  
P.O. BOX 34385  
WASHINGTON, DC 20043-9998

EXAMINER

TRIEU, VAN THANH

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 05/30/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Sent to firm (pdf) 7/7/03  
due 8/30/03

DOCKETED  
28549-188705  
CLIENT/MATTER # ATTY RSB  
DUE DATE 8/30/03  
FINAL DEADLINE 11/30/03  
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PTO-90C (Rev. 07-01)

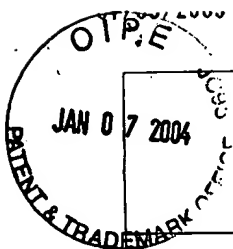
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Office Action Summary

Application No.

09/511,991

Applicant(s)

TAYLOR ET AL.

Examiner

Van T Trieu

Art Unit

2632

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION*****Claim Objections***

1. Claim 11 is objected to because of the following informalities: the phrase "he" in line 2 is incorrect. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 recites the limitation "the Internet" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 6-19, 21, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vercellotti et al** [US 5,317,309] in view of **Fullerton et al** [US 5,677,927].

Regarding claim 1, **Vercellotti et al** discloses an electronic identification system having RF tag 4 attached to a person entering a portal/entrance 1 to secured area. A plurality of RF receiver 8 having antennas 5, 6 and transmitter 11 with antenna 12 are located at the portal/entrance 1 or within the secured area for interrogating with the RF tag 4 to identify the RF tag 4 and to determined the position of the RF tag 4. The correlation information of identification and position related to a person carrying RF tag 4 are received and computed at the portal/entrance 1 and displayed on a display 10, see Figs. 1 and 2, col. 1, lines 9-18, col. 2, lines 15-55, col. 3, lines 28-61, col. 5, lines 1-48. But **Vercellotti et al** fails to disclose the ultra wideband impulse radio positioning devices. However, **Vercellotti et al** teaches that the RF beacons 8, 11 with antennas 5, 6 and 12 are used to determine the position of a person carrying an RF tag 4 to enter the portal/entrance 1 of a secured area, see Figs. 1 and 2, col. 1, lines 9-18 and col. 3, lines 46-61. **Fullerton et al** discloses an impulse radio communications system using ultra-wideband impulse radio transmitter 901 uses one or more sub-carriers to communicate intelligent information signal 1020 including digital bits representing voice, data, imagery, or the like, analog signals or complex signals in the form of UWB impulse

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radio transmitter to a remote UWB impulse radio receiver 903. The UWB impulse radio communications system is for use in a wide variety of applications, including personal communication systems and in-building communications systems, such as medical and military devices that low power consumption, reuse of available spectrum, channels and cost are four of the main issue, see Figs. 10-19, 21-24, col. 1, lines 12-16, col. 2, lines 11-29, col. 3, lines 1-55, col. 4, lines 1-9, col. 6, lines 36-62, col. 7, lines 10-20, col. 13, lines 54-67, col. 14, lines 1-37, col. 21, lines 28-61, col. 24, line 16-58 and col. 28, lines 1-17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the UWB impulse radio communication system of Fullerton et al for the RF beacons or interrogations of Vercellotti et al because the UWB impulse radio communications system is for use in a wide variety of applications, including personal communication systems and in-building communications systems, such as medical and military devices that low power consumption, reuse of available spectrum, channels and cost are four of the main issue. The UWB impulse radio communication systems can be use for obtaining information relating to a person, a child, and/or a patient with higher accuracy and reliability of communications there between.

Regarding claim 6, all the claimed subject matters are discussed between Vercellotti et al and Fullerton et al in respect to claim 1 above, and the UWB impulse radio TAG (the remote monitoring unit utilizing of UWB impulse radio communication system)

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Regarding claim 7, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious a user choice to include the gender of the entrant into the information data stored in the RF tag 4.

Regarding claim 8, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious a use choice to include the age of the entrant into the information data stored in the RF tag 4.

Regarding claim 9, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious a use choice to include the physical description of the entrant into the information data stored in the RF tag 4, such as a patient.

Regarding claim 10, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious a use choice to include the primary height of the person into the information data stored in the RF tag 4.

Regarding claim 11, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious a use choice to include the indication of whether the child is accompanied by a parent or guardian into the information data stored in the RF tag 4 because the public place or security

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area required under age children need to be accompanied by parents, guardian or teacher.

Regarding claim 12, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious to a use choice to use the identification system at the theme park in order to monitor persons and/or children in a play ground or state park.

Regarding claim 13, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious to a use choice to use the identification system at the shopping mall for monitoring its particular customers or membership customers.

Regarding claim 14, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, and the office building is met by the government facilities, industrial sites or work areas, see col. 1, line 21-26.

Regarding claim 15, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious to a use choice to use the identification system at the prison area because the prison areas require a very high security to check every single persons/individuals entering/leaving the prison area.

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Regarding claim 16, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, and the conventional center is read upon the government facilities, see col. 1, line 21.

Regarding claim 17, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein it is obvious to a use choice to use the identification system at the zoo because the zoo is a private or public place that requires permission to enter.

Regarding claim 18, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein museum park is read upon the government facilities, see col. 1, line 21.

Regarding claim 19, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 1 above, and the interface is met by the memory interface and the serial data encoder and decoder, see Fig. 2.

Regarding claim 21, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 19 above.

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Regarding claim 22, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 19 above.

Regarding claim 23, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 19 above.

Regarding claim 25, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** in respect to claim 6 above, wherein the microprocessor 2406, Fig. 24 of **Fullerton et al** which is substituted for the electronic circuit 14 of **Vercellotti et al** for reducing physical size of the circuit and minimizing space.

4. Claims 3, 4, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vercellotti et al** and **Fullerton et al** and further in view of **Schlager et al** [US 5,963,130]

Regarding claim 3, **Vercellotti et al** fails to disclose the manual input of personal information into a computer in response to questions from an attendant at an entrance to the predetermined area. However, according to the combination of **Vercellotti et al** and **Fullerton et al** in respect to claim 1 above, wherein the identification information of a person carrying RF tag 4 is automatically received and displayed on a display 10 at the portal/entrance 1, see Figs. 1 and 2. **Schlager et al** suggest that a self-locating remote monitoring system 750 comprising a keyboard 1360 for entering data information and preferred location or region of a person, child, parolee and/or patient to

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be monitored, see Figs. 2, 3, 6-8 and 43, col. 28, lines 8-31. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the keyboard of **Schlager et al** for entering data information related to a person carrying RF tag at the portal/entrance of **Vercellotti et al** and **Fullerton et al** so that authorized person or attendant can update information and track of people entering and/or leaving the secured area.

Regarding claim 4, **Vercellotti et al** fails to disclose input the personal information via the Internet. However, according to the combinations between **Vercellotti et al** and **Fullerton et al** and **Schlager et al** in respect to claim 4 above, wherein **Schlager et al** also suggests that the information of a person, child, parolee and/or patient can be connected to the communication networks or internet via a modem 1060, see Fig. 28, col. 22, lines 34-54. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the security system of **Vercellotti et al** with the modem for connecting to internet network such as of **Schlager et al** in order to provide convenience and flexibility to an authorized person or attendant to get the personal information of guests or coming individuals in advance from the internet.

Regarding claim 5, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** and **Schlager et al** in respect to claim 4 above, such as the modem and computer.



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5. Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vercellotti et al** and **Fullerton et al** and further in view of **Frink** [US 5,933,079]

Regarding claim 20, **Vercellotti et al** fails to disclose the activating an alarm when an entrant is in a particular position within a predetermined area. However, a **Vercellotti et al** teaches that physical position of an entrant is monitored and displayed on a display 10, see Fig. 1, col. 3, lines 46-61. **Frink** suggests that a monitoring system comprises a plurality of UWB devices 52, 54, 56 and transponder 58 and a computer 60 to determine the location or position of an individual or a child that entering a prohibited zone, the computer control signal a receiver to produce a loud sound alarm to warn the parent or guardian, see Figs. 1-6, col. 1, lines 32-39, col. 4, lines 63-65 and col. 5, lines 1-4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the alarm of **Frink** to the display **Vercellotti et al** and **Fullerton et al** in order to prevent of unauthorized person or child entering of the security areas or restricted areas.

Regarding claim 24, all the claimed subject matters are discussed between **Vercellotti et al** and **Fullerton et al** and **Frink** in respect to claims 19 and 20 above.

#### ***Response to Arguments***

6. Examiner is very regrettably to have a new ground of rejection because, a new reference of **Vercellotti et al** is combined with **Fullerton et al** to make the rejection

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smoother, wherein the UWB impulse radio communications systems can be adapted to use on a wide variety of applications including military, personnel and patient for monitoring and/or tracking of a person, a child under monitored at the portal/entrance.

7. There was an error in the entry of Power of Attorney mailed on 23 April 2003. Therefore it has been deleted and not made of record.

**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to primary examiner **Van Trieu** whose telephone number is (703) 308-5220. The examiner can normally be reached on Mon-Fri from 7:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Danial Wu** can be reached on (703) 308-6730.

The office facsimile number is (703) 872-9314.



**Van Trieu**  
**Primary Examiner**  
**Date: 5/29/03**



01/03/2004 11:55 FAX 202 802 8000

VENABLE

0004

**Notice of References Cited**

Application/Control No.

09/511,991

Applicant(s)/Patent Under  
Reexamination  
TAYLOR ET AL.

Examiner

Van T Trieu

Art Unit

2632

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,317,309	05-1994	L. C. Vercellotti, et al	340/573.1
	B	US-5,933,079	08-1999	B. D. Frink	340/539.1
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office  
PTO-892 (Rev. 01-2001)

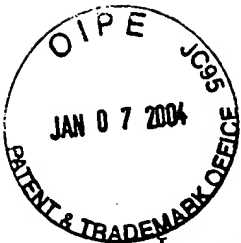
Notice of References Cited

Part of Paper No. 19

**RECEIVED**

JAN 09 2004

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PATENT  
Serial No. 09/511,991  
T.43/JSF04-0001

# 22  
6-16-04  
(N.E.)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Taylor *et al.* Art Unit: 2632  
Appl. No.: 09/511,991 Examiner: ANH V. LA  
Filed: 2/24/2000 Atty Docket: Time.43/JSF04-0001

For: **System and Method for  
Information Assimilation and  
Functionality Control Based on  
Positioning Information Obtained by  
Impulse Radio Means**

**Amendment And Reply Under 37 C.F.R. §1.111**

Director of the US Patent and Trademark Office  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the Office Action dated 05/30/2002, Applicants submit the following  
Remarks.

It is believed no extension of time is required pursuant to 37 C.F.R. § 1.136(a);  
however, if any extensions of time are necessary to prevent abandonment of this  
application, the Patent Office is authorized to charge deposit account no. 502697 and  
such extensions of time are hereby petitioned under 37. C.F.R. § 1.136(a).

**AMENDMENT**

In response to the Office Action dated May 30, 2003, please amend the above-  
identified patent application as follows:

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JAN 07 2004

PTO/SB/17 (01-03)

Approved for use through 04/30/2003. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# **FEE TRANSMITTAL** **for FY 2003**

Effective 01/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$ 55.00

## **Complete if Known**

Application Number	09/511,991
Filing Date	2/24/2000
First Named Inventor	Taylor et al.
Examiner Name	Van Trieu
Art Unit	2632
Attorney Docket No.	Time.43/JSF04-0001

## **METHOD OF PAYMENT (check all that apply)**

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 502697  
Deposit Account Name:

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## **FEE CALCULATION**

### **1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 750	2001 375	Utility filing fee	
1002 330	2002 165	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

**SUBTOTAL (1)** (\$ )

### **2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 84	2201 42	Independent claims in excess of 3
1203 280	2203 140	Multiple dependent claim, if not paid
1204 84	2204 42	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)** (\$ 0.00

\*\*or number previously paid, if greater; For Reissues, see above

## **FEE CALCULATION (continued)**

### **3. ADDITIONAL FEES**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 465	Extension for reply within third month	
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 160	Notice of Appeal	
1402 320	2402 160	Filing a brief in support of an appeal	
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	55.00
1453 1,300	2453 650	Petition to revive - unintentional	
1501 1,300	2501 650	Utility issue fee (or reissue)	
1502 470	2502 235	Design issue fee	
1503 630	2503 315	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 750	2809 375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$ 55.00

## **SUBMITTED BY**

Name (Print/Type)	James S. Finn	Registration No. (Attorney/Agent)	38,450	Telephone	202-607-4607
Signature	<i>James S. Finn</i>	Date	01/07/2004		

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

OFFICE OF PETITIONS

JAN 09 2004

**In the Claims**

Claims 1, 4, 6, 11 and 19 are currently amended and claim 22 was previously amended.

Claims 1 - 25 remain in the application as follows:

1. (Currently Amended) A method of correlating information related to an entrant within a predetermined area defined by a plurality of ~~fixed-reference~~ ultra wideband impulse radios, comprising the steps of:
  - a. obtaining information relating to the entrant within said predetermined area;
  - b. determining at least one position of the entrant within said predetermined area using ultra wideband impulse radio position determination techniques; and
  - c. correlating information about the entrant to said at least one position of the entrant.
2. The method of claim 1, further comprising the step of reporting said correlated information according to desired parameters.
3. The method of claim 1, wherein said step of obtaining information relating to the entrant in said predetermined area comprises manual input of personal information into a computer in response to questions from an attendant at an entrance to said predetermined area.

4. (Currently Amended) The method of claim 1, wherein said step of obtaining information relating to said entrant in said predetermined area comprises requiring the entrant to input said personal information via a wide area network such as the Internet.
5. The method of claim 1, wherein said step of obtaining information relating to the entrant in said predetermined area comprises requiring the entrant input said information via a computing device.
6. (Currently Amended) The method of claim 1, wherein said step of correlating comprises associating an ultra wideband impulse radio TAG with the entrant, wherein position of the entrant is determined using said information about the entrant and a position of the ultra wideband impulse radio TAG determined by ultra wideband impulse radio position determination techniques.
7. The method of claim 6, wherein said information comprises gender of said entrant.
8. The method of claim 6, wherein said information comprises age of the entrant.
9. The method of claim 6, wherein said information comprises a physical description of the entrant.
10. The method of correlating information related to an object or person moving within a predetermined area of claim 6, wherein said record includes primary height of said person.

11. (Currently Amended) The method of claim 6, wherein, if the entrant is a child, said information comprises an indication of whether the child is accompanied by a parent or guardian.
12. The method of claim 1, wherein said predetermined area is a theme park.
13. The method of claim 1, wherein said predetermined area is a shopping mall.
14. The method of claim 1, wherein said predetermined area is an office building.
15. The method of claim 1, wherein said predetermined area is a prison.
16. The method of claim 1, wherein said predetermined area is a convention center.
17. The method of claim 1, wherein said predetermined area is a zoo.
18. The method of claim 1, wherein said predetermined area is a museum.
19. (Currently Amended) A system of controlling functions in response to position information determined by ultra wideband impulse radio position determination techniques, comprising:
  - an ultra wideband impulse radio positioning device; and
  - an interface with a controller, said controller acting upon a function based upon the position information, a predetermined area defined by a plurality of ~~fixed~~ reference ultra wideband impulse radios, which use ultra wideband position determination techniques, and predetermined position parameters.



20. The system of claim 19, wherein said function is activating an alarm when an entrant is in a particular position within a predetermined area.
21. The system of claim 19, wherein said function is activating a communication device.
22. (Previously Amended) The system of claim 21, wherein said communication device comprises an ultra wideband impulse radio, said ultra wideband impulse radio communicating information specific to the position wherein the entrant is located.
23. The system claim 19, wherein said function is a visual alarm that illuminates an area wherein an entrant is located.
24. The system of claim 19, wherein said function is an alerting means to alert an entrant of an unsafe position.
25. The system of claim 19, wherein said controller is a microprocessor.

### *Remarks*

Reconsideration of the application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-25 are pending in the application. These changes are believed to introduce no new matter, and their entry is respectfully requested. Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

### *Summary of claim Rejections*

- I. Claim 11 was objected to because of the formality "he" should be --the--.
- II. Claim 4 was rejected based on 35 U.S.C. 112 as the Examiner states there is insufficient antecedent basis for the limitation "the Internet".
- III. Claims 1, 2, 6- 19, 21, 22 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Vercellotti et al. (US 5,317,309) in view of Fullerton et al. (US 5,677,927).

### *Summary of Amendment*

Applicants have amended claims 1, 6 and 19 to add the language "position determination" between "ultra wideband impulse radio" and "techniques". Support for the proposed amendments can be found at p.19, lines 17, which states:

See, for example, commonly owned, co-pending applications 09/045,929, filed March 23, 1998, titled "Ultrawide-Band Position Determination System and

Method", and 09/083,993, filed May 26, 1998, titled "System and Method for Distance Measurement by Inphase and Quadrature Signals in a Radio System", both of which are incorporated herein by reference.

Applicants have amended claim 4 to include "a wide area network such as" prior to "the Internet".

Applicants have amended claim 11 at line 2 to change "he" to "the".

***Remarks regarding I***

Applicant submits the informality is traversed with the claim modification of claim 11.

***Remarks regarding II***

Applicant has amended claim 4 to provide the indefinite article "a" and "wide area network" prior to the "the Internet". As the Internet is a subset of a wide area network and a wide area network is an inherent super set of the Internet, support for this amendment can be found on page 25, line 23, which states:

"In addition to the mailed questionnaire, information can be input over the Internet and correlated to an entrant TAG for pickup at the predetermined area or again mailed to the future entrant."

Applicant thus submits this rejection is traversed with this amendment of claim 4.

*Remarks regarding III*

Applicants have amended claims 1, 6 and 19 to add the language "position determination" between "ultra wideband impulse radio" and "techniques". The Examiner stated that it would be obvious to combine Vercellotti et al. and Fullerton et al to anticipate the present invention. Vercelloti provides in the '309 patent a dual mode electronic identification system using a tag which has an RF receiver and transmitter contained therein.

In Vercellotti, in the first mode, the tag responds to an interrogation signal by transmitting identification data to the interrogator. In the second mode the tag periodically transmits an identification beacon signal to a directional sensing antenna which uses the signal to compute the position of the tag. The power supply for the tag operates from an internal battery or from power received from a portal signal via a tag receiving antenna.

Fullerton provides in the '927 patent, an impulse radio communications system using one or more subcarriers to communicate information from an impulse radio transmitter to an impulse radio receiver. The impulse radio communication system is an ultrawide-band time domain system. Further, the '927 patent provides that direct digital modulation of data is another form of subcarrier modulation for impulse radio signals. Direct digital modulation can be used alone to time modulate the periodic timing signal or the direct digitally modulated the periodic timing signal can be further modulated with one or more modulated subcarrier signals. Linearization of a time modulator permits the impulse radio transmitter and receiver to generate time delays having the necessary accuracy for impulse radio communications.

The Applicant respectfully submits that with the modification of the claims, the Examiner can no longer satisfy the basic requirements of a prima facie case of obviousness by using Vercellotti et al and Fullerton et al. to reject the aforementioned claims. For the Examiner to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references. Second, there must be some reasonable expectation of success. Finally, the references when combined must teach or suggest all of the claimed limitations. Manual of Patent Examining Procedure, Section 2143. For the reasons articulated below, the Applicant believes that in the present case, the Examiner has not met this burden.

The claims have been modified to include the requirement that the position of the TAG be determined by impulse radio position determination techniques. Thus, it would not be possible to simply replace the radios in the dual mode electronic identification system of Vercellotti et al. with the impulse radios of Fullerton to achieve the claimed invention. As noted above, Vercellott requires the use of directional antennas to determine the position of the TAG. Indeed, even if Vercellotti replaced his radios with the Ultra Wide Band radios of Fullerton, the position determination would be done using directional antennas and not the impulse radio position determination techniques disclosed and claimed in the present application.

Again, as discussed above, Fullerton discloses ultra wideband radios, but not the impulse radio position determination techniques of the present invention; and Vercellotti discusses position determination, but not by using impulse radio position determination

techniques. Thus, determining the position of the TAG using impulse radio position determination techniques is neither disclosed, taught, nor suggested in either Fullerton or Vercellotti.

The Applicant respectfully submits the rejection set forth in III, has been traversed.

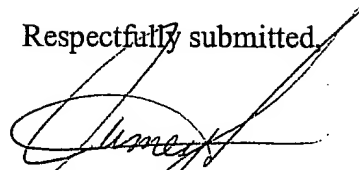
### *Conclusion*

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot.

Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reasons, that personal communication will expedite prosecution of this application the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James S. Finn", written over the typed name and registration number.

James S. Finn  
Reg. No. 38450

Date: 8-26-03

James S. Finn  
Registered Patent Attorney  
Time Domain Corporation  
7057 Old Madison Pike  
Huntsville, AL 35806  
202-607-4607